

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

Ag 84m
 Misc Pub 1026
 C.1

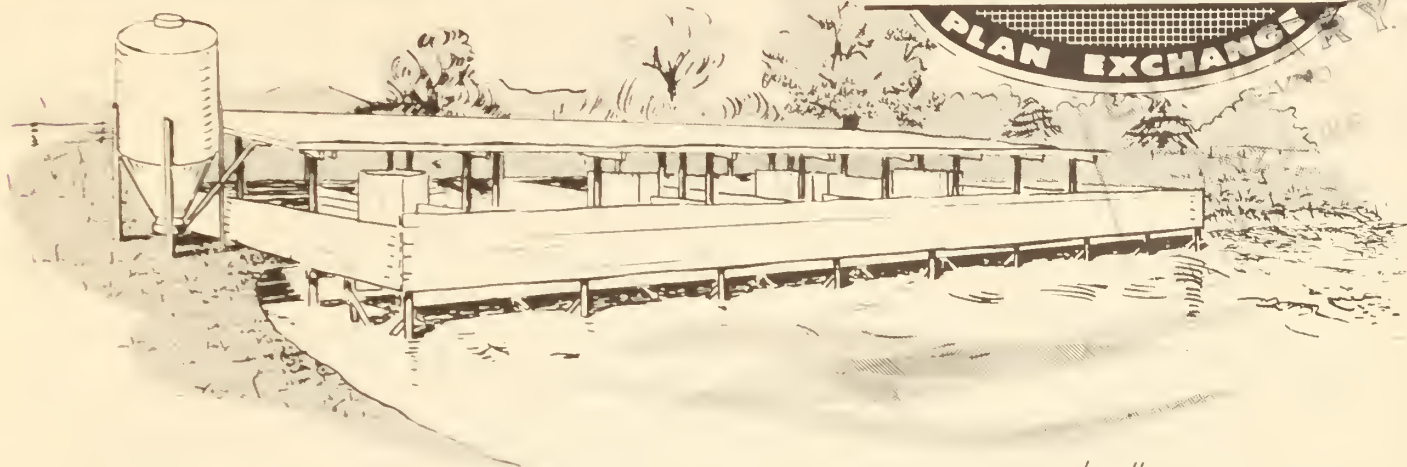
FEEDING FLOOR for 200 Pigs



Plan No. 5986

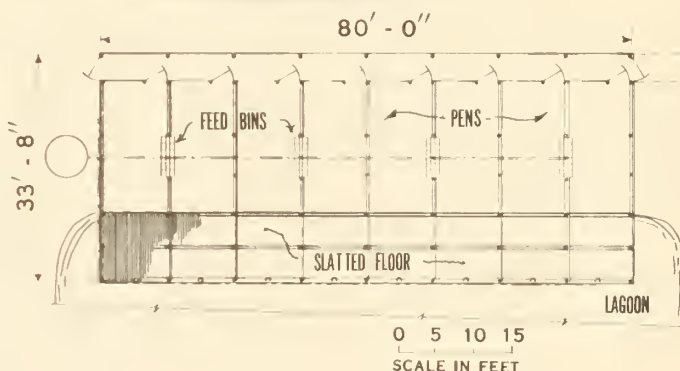
(2 - SHEETS)

PLAN EXCHANGE



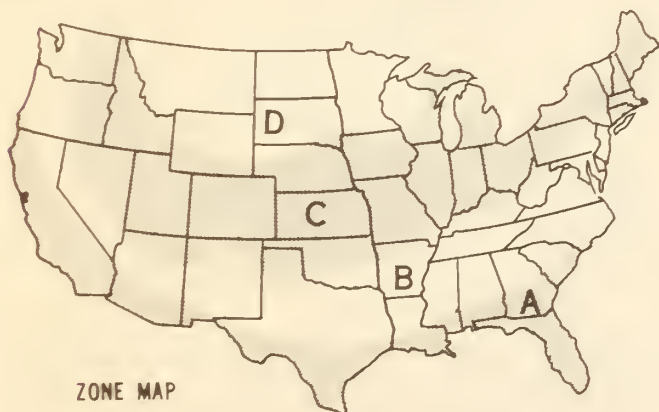
A feeding floor with a slatted extension built directly over open water—for disposing of manure—reduces the labor required in fattening swine. This system is not recommended for zone D and the northern portion of zone C (shown on the map below). But in zones A and B, slatted floors over open water should give good service if the water area is large enough to assure proper decomposition.

The minimum surface area of water required depends on the climate and the limits of permissible odor. In small, heavily loaded lagoons, the decomposition is anaerobic. These lagoons act—and smell—like open septic tanks. As lagoons become larger, the decomposition becomes partly aerobic and partly anaerobic. These lagoons might be termed stabilization ponds. In large lagoons, active oxygen-generating algae and surface wind action decompose organic waste with



little or no odor. But completely aerobic lagoons are too large to be economical for most swine-feeding operations.

The minimum surface area of water required to service a feeding floor for 200 pigs (Plan No. 5986) in the various zones is as follows:



ZONE MAP

Zone	Anaerobic lagoon (open septic tank)	Stabilization pond	Aerobic lagoon
	Square feet	Square feet	Square feet
A.....	1,400	4,000	21,000
B.....	1,900	4,000	43,000
C.....	2,800	6,000	64,000
D.....	2,800	10,000	86,000

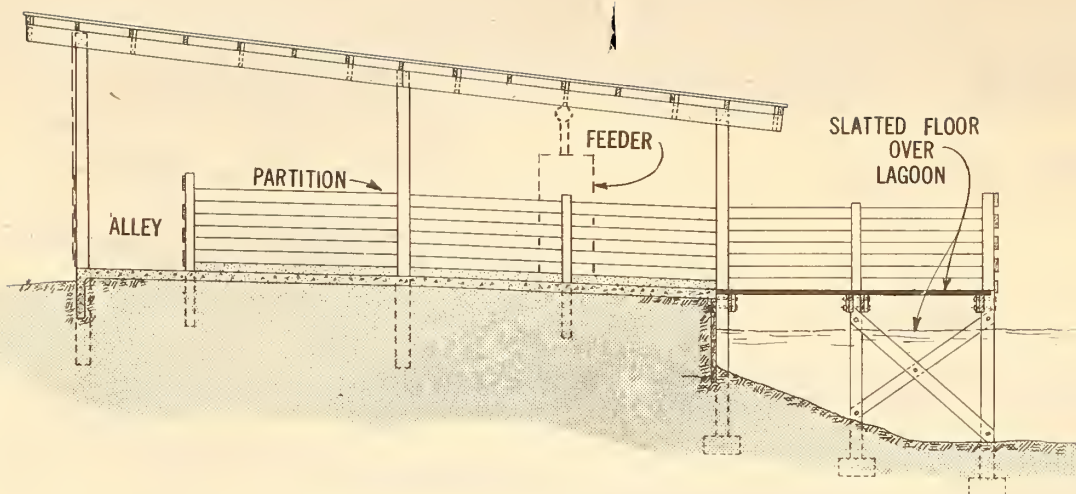
The water should be at least 5 feet deep, and provision should be made to maintain the water level.

Washington, D.C.

Issued July 1966

UNITED STATES DEPARTMENT OF AGRICULTURE

Miscellaneous Publication No. 1026



Locate the feeding floor and stabilization pond downwind from the closest dwelling, and where the wind can blow across them. There will be odors from time to time, so it is well to anticipate them. Avoid wooded areas or other natural barriers to the wind. Wind cools the hogs and removes odors. It also blows scum from the surface of the pond and agitates the surface; this permits light to penetrate the water and produces water currents that help distribute waste.

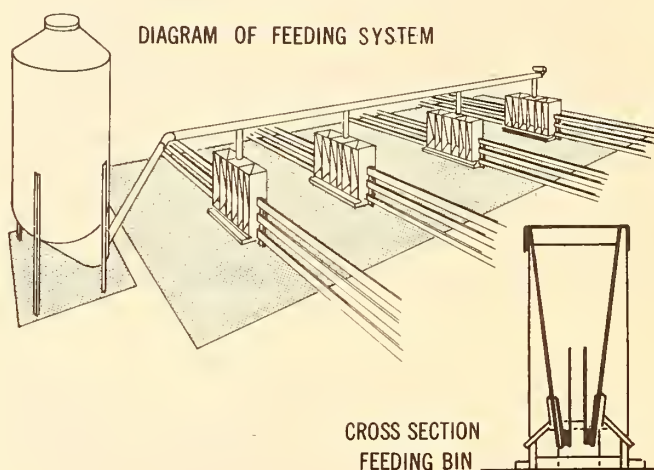
Observe the practices recommended by the Soil Conservation Service for constructing a good pond. The pond should be nearly round or square, should have gently sloped banks that can be mowed without dumping weed clippings into the pond, and should have stable earthwork that will not fail.

Special care is necessary in constructing the treated wooden bulkhead beneath the building. The barrier must be watertight to prevent waves from undermining the concrete slab. Plastic film installed back of the bulkhead will hold water. Footings for the roof-supporting columns should be placed on solid earth under the pond. The bulkhead should be longer than the building, so earth will not slough away from the floor.

Slats 2 inches thick may be built from 2 x 8 oak planks ripped at an angle. Some of these wooden slats may need to be replaced in only 2 years. An alternate arrangement, shown on the plan, uses reinforced concrete slats for the outside pen area over open water. Steel slats may also be used.

The feeding system uses an auger to deliver concentrates from a bulk bin. One series of six feeders

serves two pens. The feeders are built with agitators to assure feed flow. In some feeding programs, it will be desirable to feed separate rations from two bulk bins. The two rations can be fed with one auger, but the husbandman must make the switch-over from one ration to the other; at present, a control system for an automatic switch-over is economically unfeasible for an operation of this size.



Complete working drawings may be obtained through your county agricultural agent or from the Extension agricultural engineer at most State agricultural colleges. There is usually a small charge.

ORDER PLAN No. 5986, Feeding Floor . . . For 200 Pigs

If the working drawings are not available in your State, write to the U.S. Department of Agriculture, Agricultural Engineering Research Division, Plant Industry Station, Beltsville, Md. The U.S. Department of Agriculture does not distribute drawings, but will direct your request to a State that does distribute them.

611-7